



Far Left: Rudimentary prototypes in paper, card and plastic sheet.

Left: Traditional grass weaving used to make rafta floor mats.

Below: A 'Hawker's bag' inspired the drawstring mechanism for quick-gathering.



Water Group I 'Kwale Rain Water Harvesting Mat':

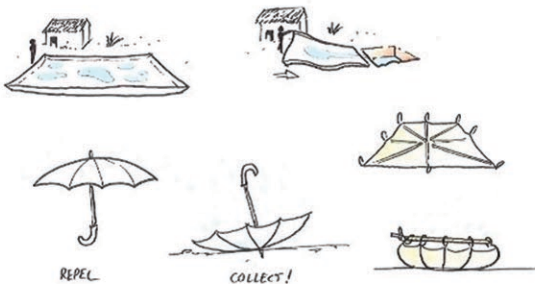
Kwale benefits from two prolific rainy seasons each year. Despite this many villagers do not make any provision to harness this water.

The analogy of an upturned umbrella inspired the students to devise a large articulating waterproof mat which could be unfurled in an instant at the first sight of rain.

The mat collects rain water over a wide area and can then be articulated into a folded pouch to transport the water to a nearby storage hole or tank.

The mat also has an 'offline' state; a rafta weave on the reverse which affords sitting.

Complications with prototyping resulted in an animation being made to illustrate how it might work. This can be viewed on the project blog.



Water Group I, 'Kwale Rain Harvesting Mat'

- A retractable mat for rain harvesting.
- Quick and easy to deploy.
- Sesol drawstring mechanism forms the mat into a carrying pouch.
- Harvested water can be transported to long-term storage.
- Can be used on-off-off the compound.
- Offline state = grass rafta mat for sitting
- Cheaply appropriated from locally available materials.

